

FIG. 1





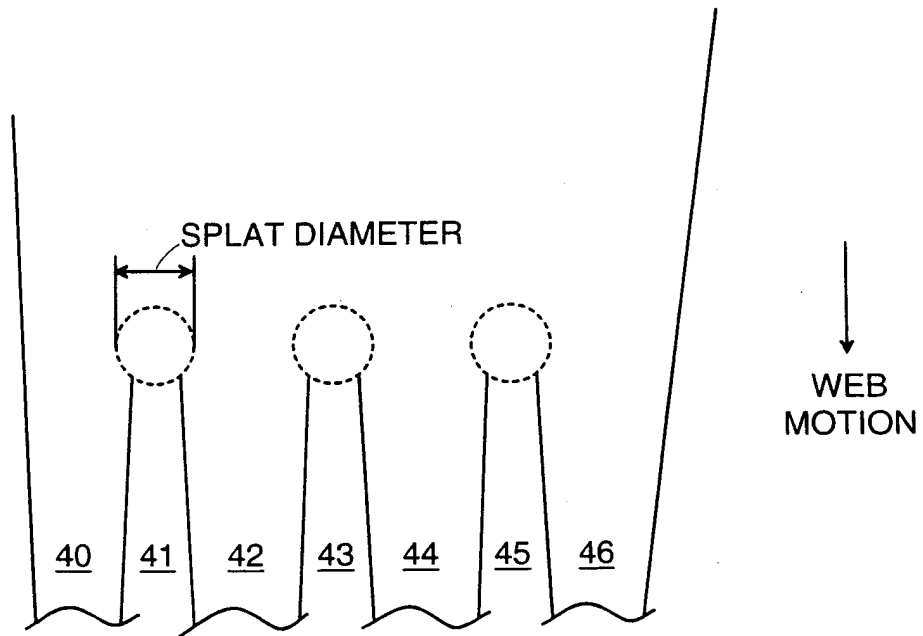


FIG. 5

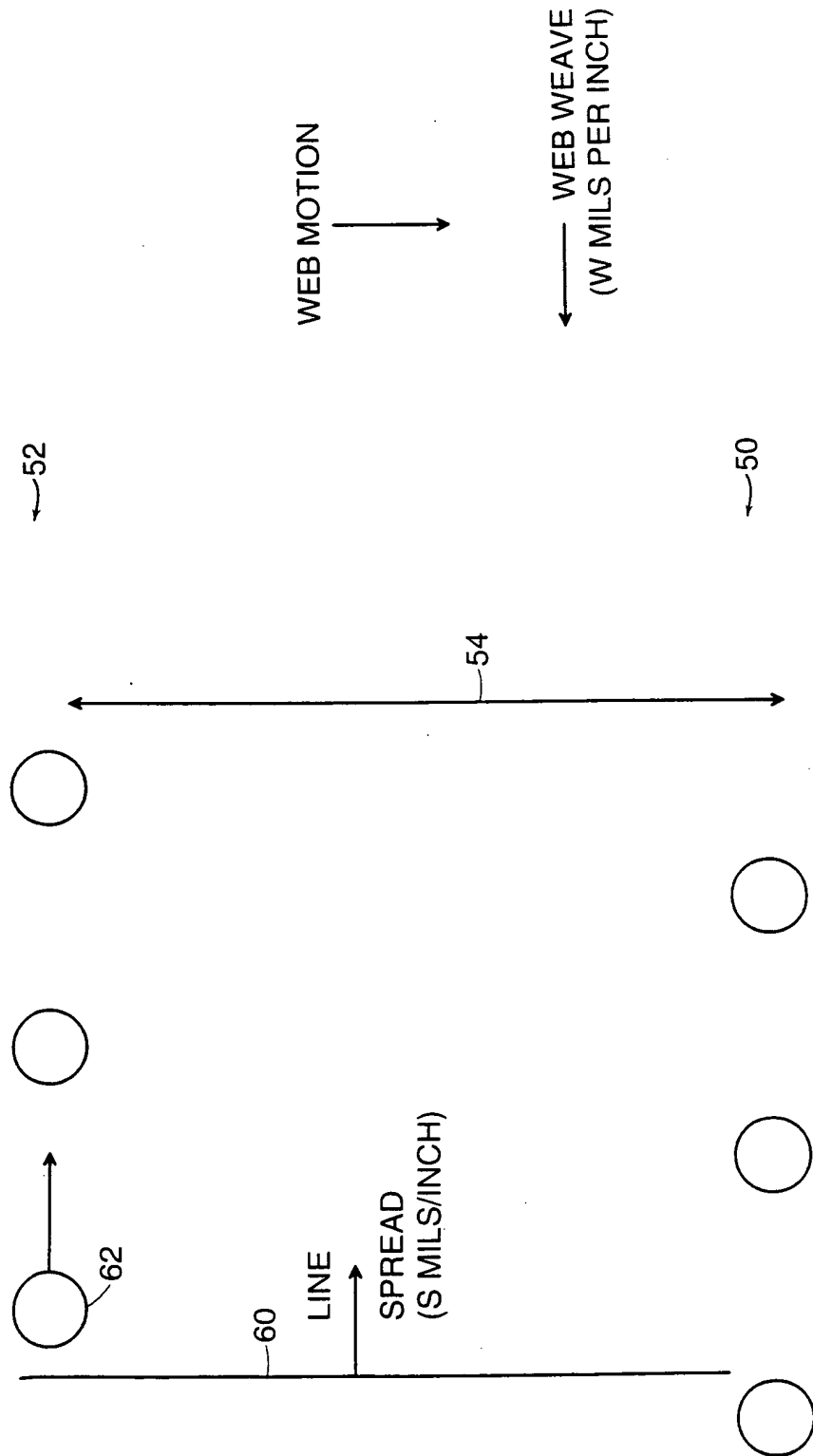
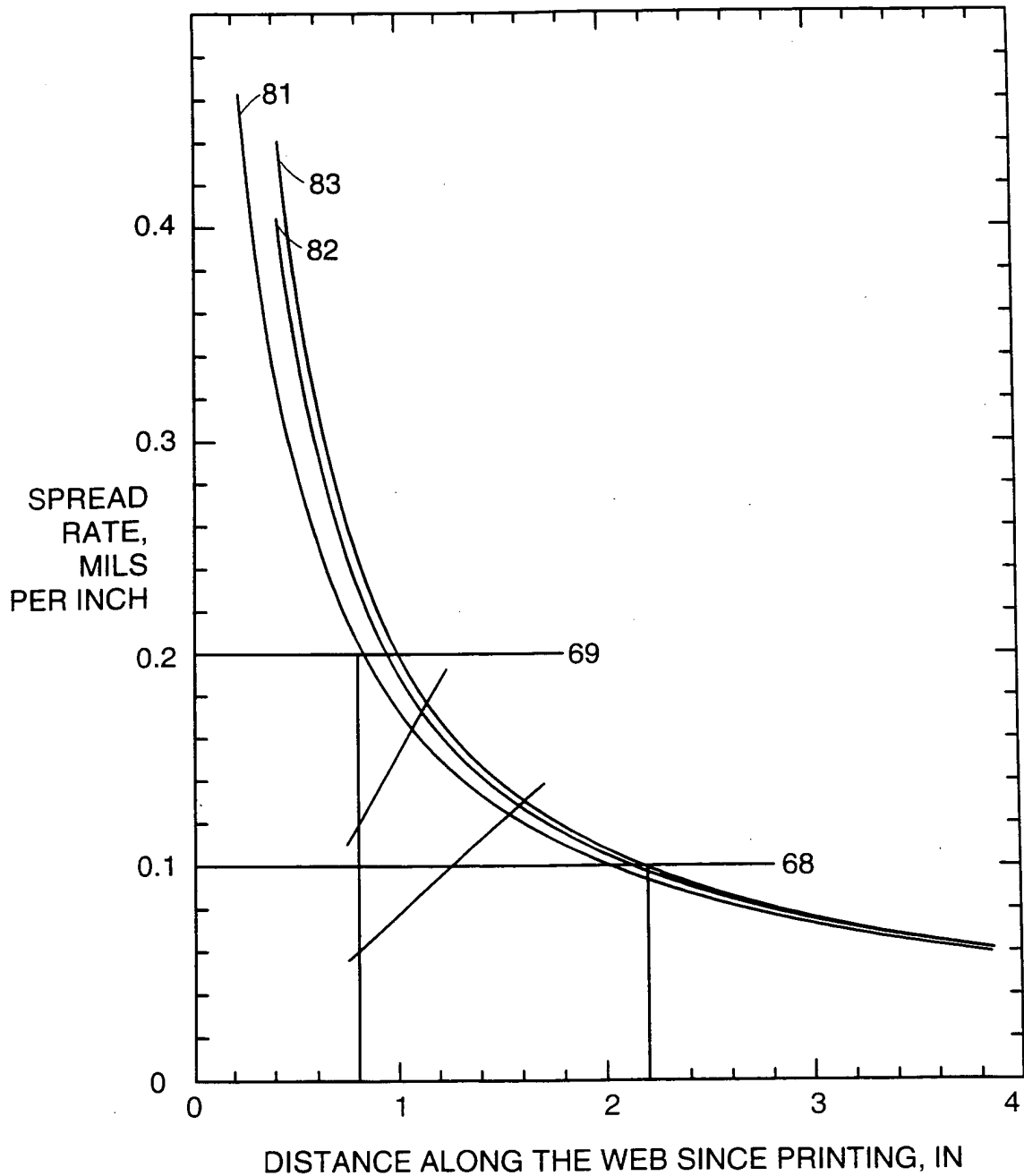


FIG. 6



SPREAD RATE OF ONE SIDE OF A LINE FOR DIFFERENT SPLAT SIZES
FREQUENCY = 12.0 kHz VISCOSITY = 15.0 cp
SURFACE TENSION = 29.0 dynes/cm. DROP VOLUME = 15.0 pl

FIG. 7

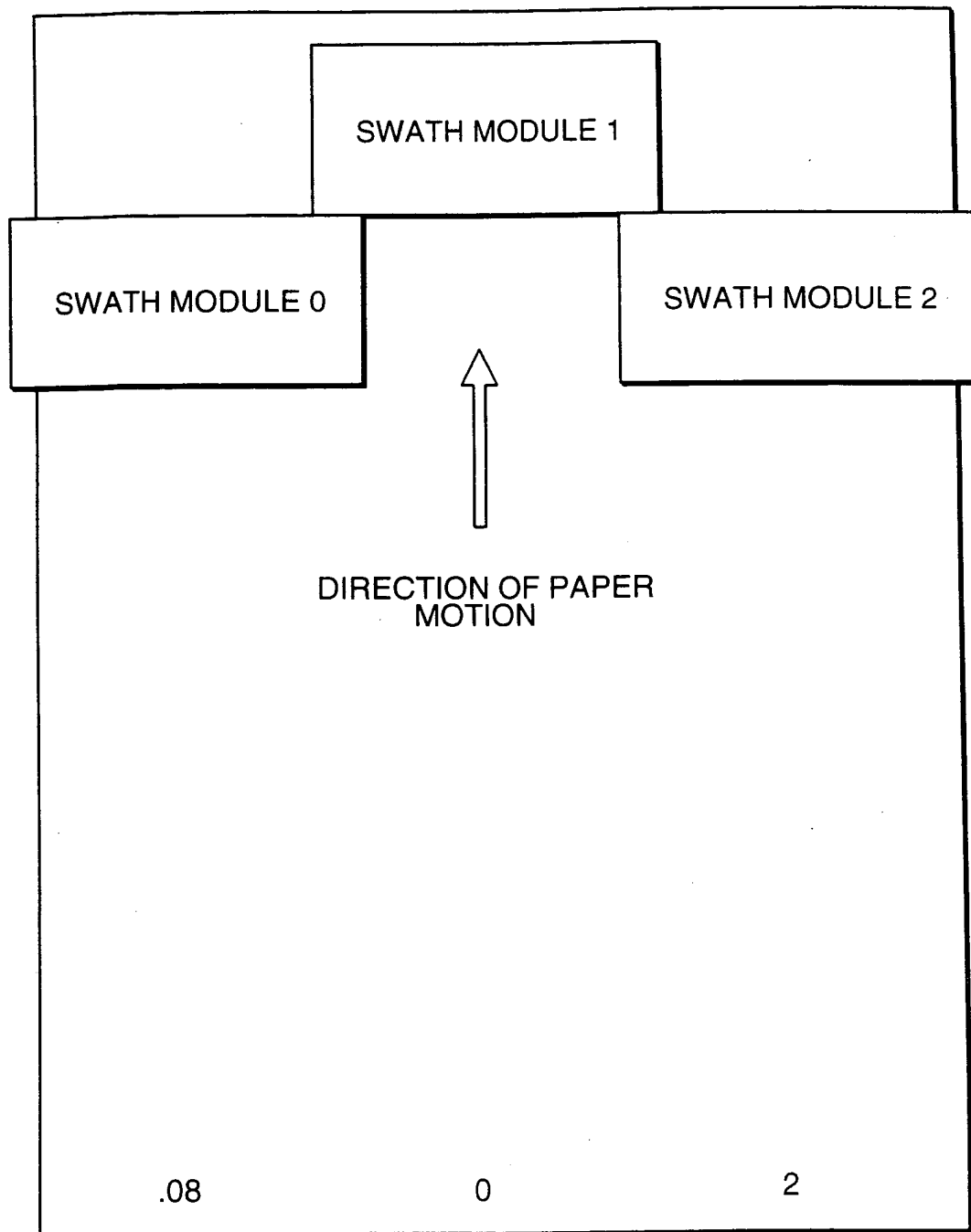


FIG. 8

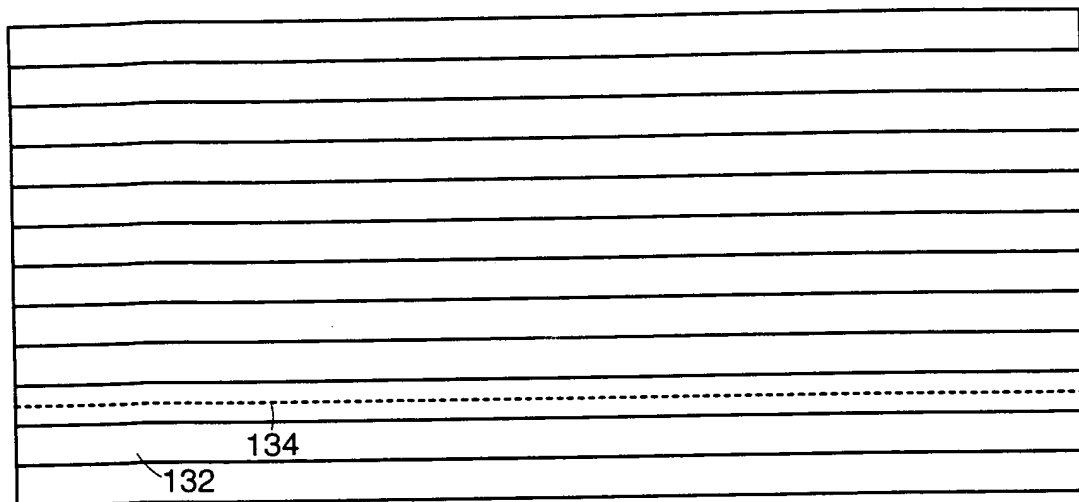


FIG. 9

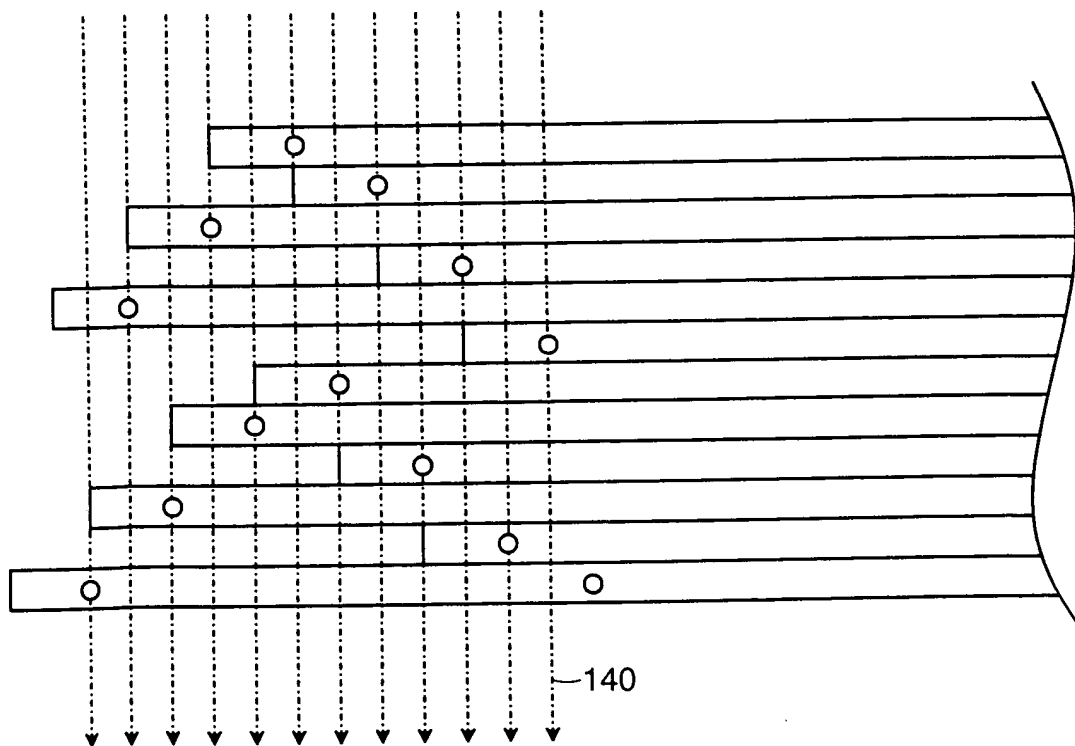


FIG. 10

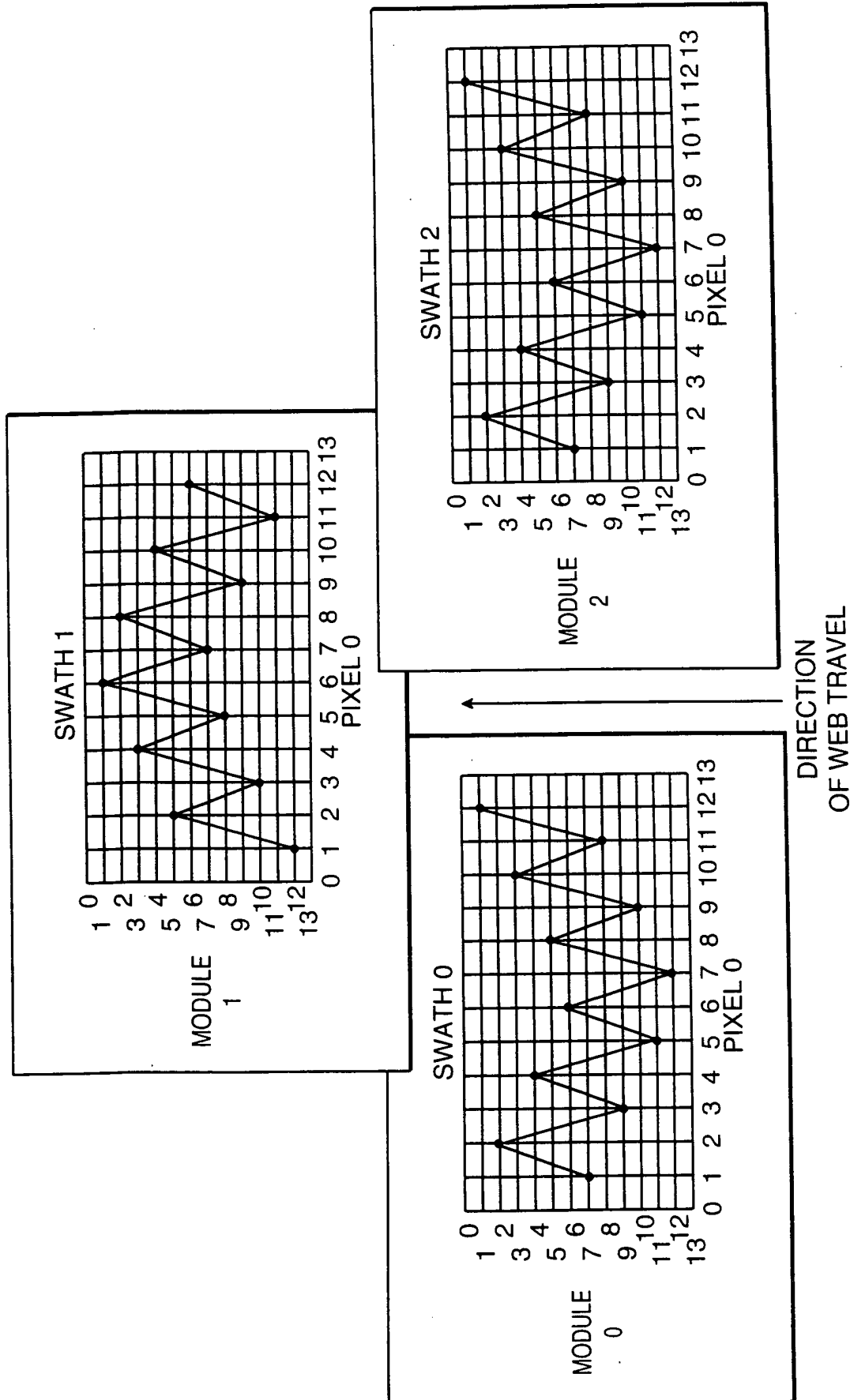
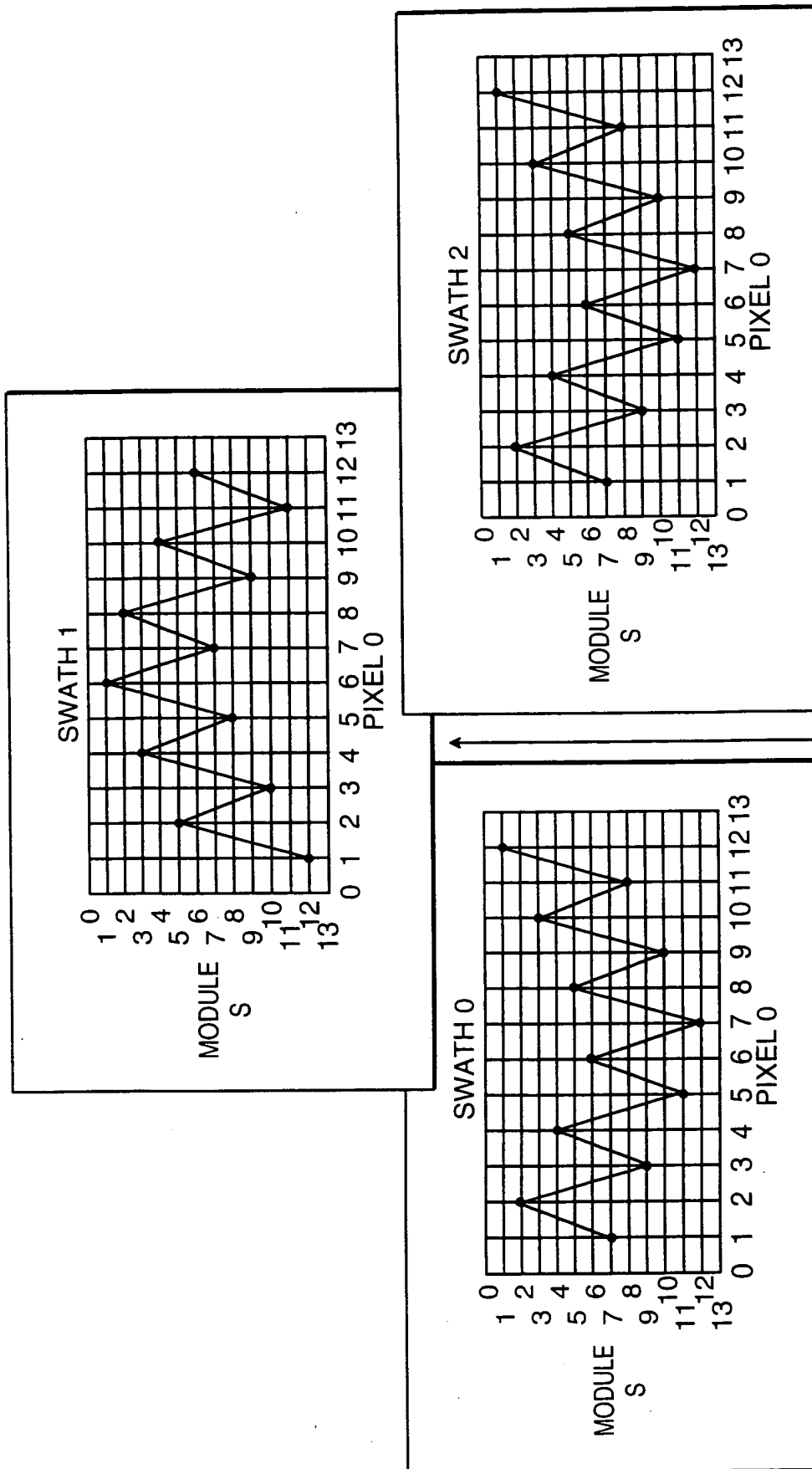


FIG. 11

| SWATH 0 (A-SWATH) | | | | |
|-------------------|----------|---------------|---------------|----------------------|
| PIXEL | MODULE # | X LOCATION | Y LOCATION | |
| 1 | 7 | 0.0000 | 0.0000 | |
| 2 | 2 | 0.0017 | 1.4000 | |
| 3 | 9 | 0.0033 | -0.4000 | |
| 4 | 4 | 0.0050 | 0.8000 | |
| 5 | 11 | 0.0067 | -1.0000 | |
| 6 | 6 | 0.0083 | 0.4000 | |
| 7 | 12 | 0.0100 | -1.2000 | |
| 8 | 5 | 0.0117 | 0.6000 | |
| 9 | 10 | 0.0133 | -0.8000 | |
| 10 | 3 | 0.0150 | 1.2000 | |
| 11 | 8 | 0.0167 | -0.2000 | |
| 12 | 2 | 0.0183 | 1.6000 | |
| 13 | 7 | 0.0200 | 0.0000 | REPEAT OF PATTERN |
| 14 | 2 | 0.0217 | 1.4000 | REPEAT OF PATTERN |
| . | . | . | . | . |
| . | . | . | . | . |
| 1535 | 8 | 2.5567 | -0.2000 | END OF SWATH 0 |
| 1536 | 1 | 2.5583 | 1.8000 | END OF SWATH 0 |
| 1537 | 12 | 2.5600 | 2.5890 | BEGINNING OF SWATH 1 |
| 1538 | 5 | 2.5617 | 4.3890 | BEGINNING OF SWATH 1 |
| . | . | . | . | . |
| . | . | . | . | . |
| 3071 | 11 | 5.1167 | 2.7890 | END OF SWATH 1 |
| 3072 | 6 | 5.1183 | 4.1890 | END OF SWATH 1 |
| 3073 | 7 | 5.1200 | 0.0000 | BEGINNING OF SWATH 2 |
| 3074 | 2 | 5.1217 | 1.4000 | BEGINNING OF SWATH 2 |
| . | . | . | . | . |
| . | . | . | . | . |
| 4607 | 8 | 7.6767 | -0.2000 | END OF SWATH 2 |
| 4608 | 1 | 7.6783 | 1.6000 | END OF SWATH 2 |

FIG. 12



DIRECTION
OF WEB TRAVEL

FIG. 13

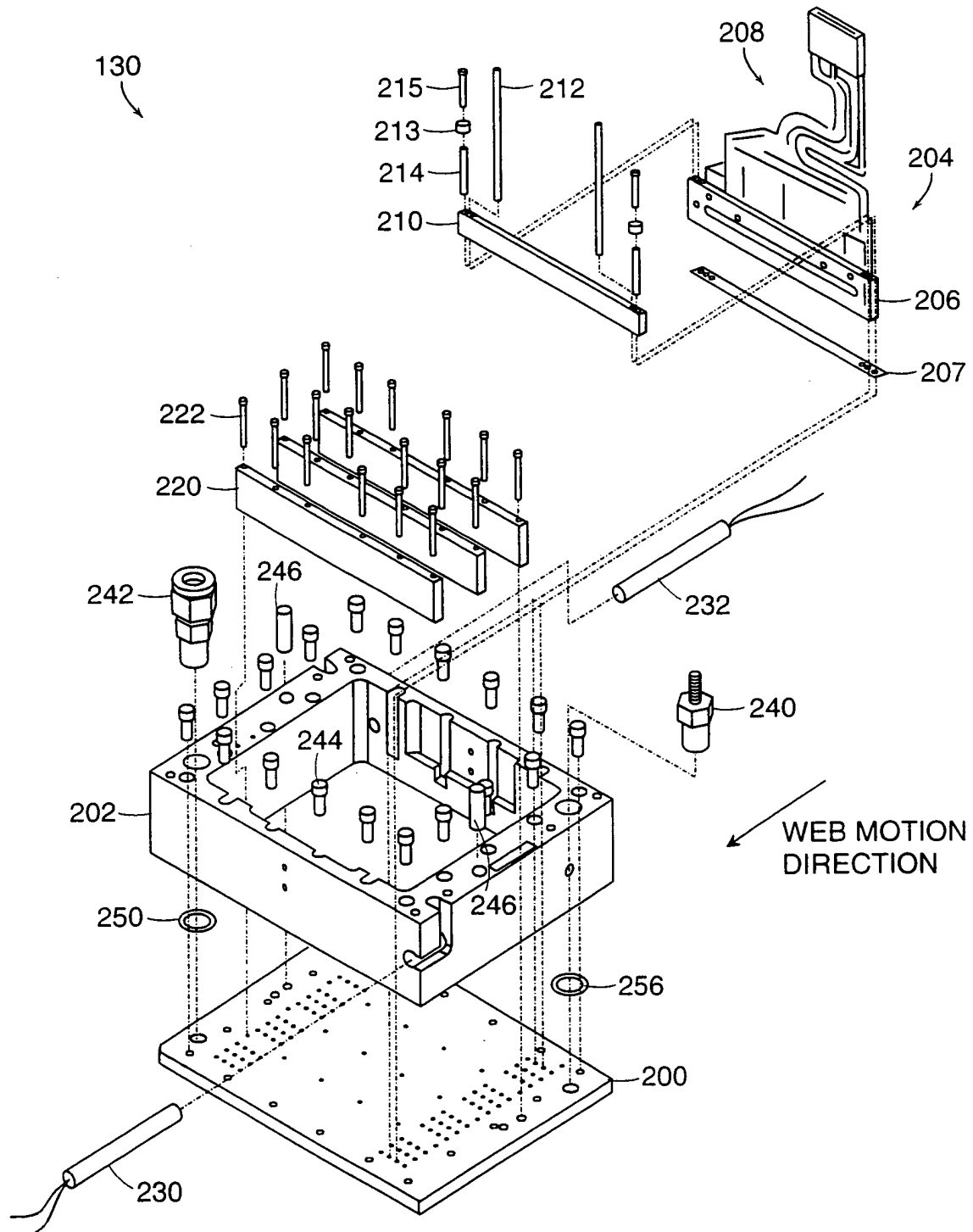


FIG. 14